

# Work Order ID 51416

August 21, 2009 1:47:16 PM



Page 1

Item ID: D350-561-045

Accept



Setup Start



Revision ID: N/A

Stop



Item Name: Dual Mirror Accessory kit

Start Date: 08/24/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/26/2009 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals:

Process Plan: MF

Date: 09-08-21

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

N/A

Rev N/A

0.00

100



DC

Document Control

DOCUMENT CONTROL

Memo

Photocopy bluefile and create labels per PPP D350-561-045 CHG001

09/08/21



870

110



QC

Quality Control

QC4- 100% Inspect kits for completeness

0.00

0.00

Memo

2) 09/08/21



f

120



Packaging

Packaging

Packaging

0.00

0.00

Memo

Identify and pack for shipping as per PPP D350-561-045

goes on.  
#51418.  
MF  
09-08-21  
- D350-561-143

W/O: 51416		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
09-08-21	W/O header	11N Addl D350-561- <del>045</del> Rev C. to change box for pick list Reference. perm change	AA	09/08/21		09-08-21	09-08-21	

Part No: D350-561-045 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**Work Order ID 51416**

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Item ID: D350-561-045

Accept



Setup Start



Revision ID: N/A

Stop



Item Name: Dual Mirror Accessory kit

Start Date: 08/24/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 08/26/2009 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

*[Signature]*  
mf 09-08-21

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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# Picklist Print

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Work Order ID: 51416

Parent Item: D350-561-045RevN/A

Parent Item Name: Dual Mirror Accessory kit

Comments:

Start Date: 08/24/2009

Required Date: 08/26/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2012-113RevC <i>x2</i>		Manufactured	No			110	Each	71.0000	2.0000			
Clamp											31484	SL

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

71

31484

6

32552

36

35463

29

D2856-100-325RevA

Manufactured

No

110

Each

37.0000

2.0000

Abrasion Strip

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

37

30822

13

34142

24

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Shop Packet Print

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Work Order ID: 51416



Parent Item: D350-561-045RevN/A



Parent Item Name: Dual Mirror Accessory kit

Start Date: 08/24/2009

Required Date: 08/26/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

S MS21042L3

Nut

Purchased

No

110

Each

3,969.000

2.0000



M111274

9/8/21  
(10)

## Warehouse

## Loc Qty

## Loc Code

### Location

Main Warehouse

ST

3969

110844

32

~~111274~~

445

111668

992

112314

2000

112385

500

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Work Order ID: 51416

Parent Item: D350-561-045RevN/A

Parent Item Name: Dual Mirror Accessory kit

Comments:

Start Date: 08/24/2009

Required Date: 08/26/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3-4A Bolt		Purchased	No			110	Each	2,214.000	1.0000			

Warehouse  
Location

Main Warehouse

ST	2214
103915	155
104214	500
104291	300
104322	200
104374	200
104625	300
104817	559

AN3-5A  
Bolt

Purchased No 110 Each 2,518.000 1.0000

Warehouse  
Location

Main Warehouse

ST	2518
100188	214
105057	2246
15205	58

103915 SD

105057

9/8/21

SD

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Work Order ID: 51416



Parent Item: D350-561-045RevN/A



Parent Item Name: Dual Mirror Accessory kit

Start Date: 08/24/2009

Required Date: 08/26/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD10 Washer	1 66	Purchased	No			110	Each	2,668.000	6.0000			



111668

SO

9/8/21

(10)

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	2668	
105442	95	
109059	2	
109840	23	
110985	202	
111279	13	
111668	333	
112314	1000	
112369	1000	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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# Picklist Print

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Work Order ID: 51416

Parent Item: D350-561-045RevN/A

Parent Item Name: Dual Mirror Accessory kit

Comments:

Start Date: 08/24/2009

Required Date: 08/26/2009

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960JD416 Washer	2	Purchased	No			110	Each	10,196.00	2.0000		11/9/16	SP

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	10196	
102929	2	
105906	4	
107321	23	
107939	114	
108161	553	
108827	31	
109249	69	
110523	340	
111279	101	
111916	4072	
112314	4887	
16941	0	

D2011-101RevG 6" Mirror		Manufactured	No			110	Each	14.0000	1.0000			
----------------------------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
ST	14	
22179	0	
43793	11	
47592	1	
51351	2	

August 21, 2009 1:47:15 PM

Shop Packet Print

Page 3

51351 9/5/21 OS

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

## 4. WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D350-561-041	2.5 lb	+39.0 in	+97.5 in-lb	9.0 in	22.5 in-lb
Single Mirror Installation	1.1 kg	+0.99 m	+1.09 m-kg	0.23 m	0.25 m-kg
D350-561-043	3.2 lb	+40.0 in	+128.0 in-lb	8.8 in	28.2 in-lb
Dual Mirror Installation	1.5 kg	+1.02 m	+1.53 m-kg	0.22 m	0.33 m-kg

## 5. PARTS LIST

Qty -041	Qty -043	Qty -045	Part Number	Description
X	1	1	D350-561-041	SINGLE MIRROR INSTALLATION
	X		D350-561-043	DUAL MIRROR INSTALLATION
	1	X	D350-561-045	MIRROR KIT
1		1	D2011-101	Mirror
1			D2012-101	Arm
1			D2012-103	Arm
1			D2012-105	Arm
2			D2012-107	Clevis
1			D2012-109	Bracket
1			D2012-111	Bracket
4		2	D2012-113 <sup>F</sup>	Clamp
1			D2012-115	Bracket
4			D2022-101	Spacer
4		2	D2856-100-325	Abrasion Strip
1*		1*	D3014-1	Locknut
2		1	AN3-4A	Bolt
2		1	AN3-5A	Bolt
1			AN3-6A	Bolt
3			AN4-5A	Bolt
2			AN4-10A	Bolt
14		6	AN960JD10	Washer
9		2	AN960JD416 <sup>AJ</sup>	Washer
1*		1*	AN960JD416L	Washer
5		2	MS21042L3/	Nut (or MS21042-3)
5			MS21042L4	Nut (or MS21042-4)

\*INCLUDED AS PART OF D2011-101 MIRROR

51416

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**DART**

DESIGN <i>B</i>	DRAWN BY <i>DC</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>UE</i>	APPROVED <i>HA</i>	DRAWING NO. DSI 9379	REV. B SHEET 1 OF 5
DATE 07.11.26		TITLE CARGO MIRROR UPGRADE KIT	SCALE NTS
A	07.07.10	NEW ISSUE	
B	07.11.26	MS21919WDG7 WAS MS21929WDG7	

## **DART SERVICE INSTRUCTION**

**TO AMEND INSTALLATION INSTRUCTIONS D350-561 REV. C**

REF. CANADIAN STC: SH91-20 ISSUE 2

REF. FAA STC: SH856NE

To reduce vibration, Dart has developed the D350-561-141/-143 Mirror Installations to replace the D350-561-041/-043 Mirror Installations. For customers with D350-561-041/-043 Mirror Installations at CHG 005 or earlier who would like to upgrade their installation, the DSI 9379-011 Upgrade Kit can be obtained from Dart. The components for DSI 9379-011 Kit are as defined in Section 1.0 below.

Customers upgrading their installation from D350-561-041/-043 to D350-561-141/-143 should follow instructions given in Figures 1 through 5 of DSI 9379 and refer to Installation Instructions D350-561 Rev. C as applicable.

Customers who are installing a D350-561-141/-143, should refer to Figures 2 through 5 of DSI 9379 and refer to Installation Instructions D350-561 Rev. C as applicable.

### **1.0 PARTS LIST**

Qty -141	Qty -143	Qty -045	Qty -011	Part Number	Description
X	1			D350-561-141	SINGLE MIRROR INSTALLATION (REPLACES -041)
	X			D350-561-143	DUAL MIRROR INSTALLATION (REPLACES -043)
	1	X		D350-561-045	MIRROR KIT
			X	DSI 9379-011	UPGRADE KIT
1		1		D2011-101	MIRROR
1				D2012-105	ARM
1				D2012-107	CLEVIS
1				D2012-111	BRACKET
		2		D2012-113	CLAMP
1				D2012-115	BRACKET
2				D2022-101	SPACER
1*		1*		D3014-1	LOCKNUT
1			1	D3629-1	BRACKET
1			1	D3635-1	GASKET
2			2	D3635-3	GASKET
1			1	D3646-1	ARM
1			1	D3646-3	ARM
3			3	AN3-4A	BOLT
2			2	AN3-5A	BOLT
1				AN3-6A	BOLT
1				AN4-5A	BOLT
1				AN4-10A	BOLT
12			10	AN960JD10	WASHER
4				AN960JD416	WASHER
1*		1*		AN960JD416L	WASHER
6			5	MS21042L3	NUT (OR MS21042-3)
2				MS21042L4	NUT (OR MS21042-4)
2			2	MS21919WDG7	CLAMP

\*INCLUDED AS PART OF D2011-101 MIRROR

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

**APPROVED**

BY: *[Signature]*  
D. SHEPHERD (DE # 02)

DATE: 07.11.30  
CERT. NO.: SH91-20  
ISSUE NO.: 2

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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